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10/553,575	09/26/2006	Benjamin Firooz Ghassabian	GHASSABIAN12	7464

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,575	GHASSABIAN, BENJAMIN FIROOZ	
	Examiner	Art Unit	
	VINH LAM	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-80* is/are pending in the application.

4a) Of the above claim(s) *1-34,42,43,53,55-59 and 67* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35-41,44-52,54,60-66 and 68-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims **35-41**, **44-52**, **54**, **60-66**, and **68-80** are rejected under 35 U.S.C. 103(a) as being unpatentable over **King et al. (US Patent No. 6011554)** in view of **Goren (US Patent No. 7190351).**

Regarding Claim **35**, (Currently Amended) **King et al.** teach a data entry system, comprising:

an input unit (*Col. **6**, Ln. **34-35**; Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **56's Left Column***) adapted to receive a plurality of different first input signals (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **1, 4,** and **7...***), each associated with a group of symbols (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **1, C, Y, K, Ret, Tab, Esc***), and the first input signals are together associated with all the letters of an alphabet of a language (*Col. **6**, Ln. **28-33**, FIG. **1B**, i.e. **56***); and

a word predictive system (*Col. **6**, Ln. **17-20**, FIG. **1A**, i.e. **50***) adapted to select a single word (*Col. **6**, Ln. **38-40**; Col. **20**, Ln. **1-6**, FIG. **6**, i.e. **done***) from a word database (*Col. **20**, Ln. **12-15**, FIG. **6**, i.e. **76***) responsive to a sequence of first input signals

provided by a user, while selecting for each of the first input signals in the sequence one of the letters out of the group of symbols with which it is associated (*Col. **8**, Ln. **15-24**, FIG. **6***).

However, **King et al.** do not teach that the input unit comprises a plurality of keys arranged in two groups, the keys of each group arranged in a respective single column, wherein each group is configured for use by a finger of a different hand of a user.

In the same field of endeavor, **Goren** teaches the input unit (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **500***) comprises a plurality of keys arranged in two groups (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***), the keys of each group arranged in a respective single column (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** or **506***), wherein each group is configured for use by a finger of a different hand of a user (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **Left** and **Right***), such that a user can touch all the keys of each group (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** or **506***) concurrently with a single finger (*Col. **5**, Ln. **24-54**, e.g. thumb*), in a manner which allows selectively actuating each of the keys by the finger (*Col. **5**, Ln. **24-54***).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **King et al.** teaching of a data entry system comprising plurality of input buttons having word prediction capability with **Goren** teaching of arrangement of input buttons in left and right columns *to provide faster and easier data input*.

Regarding Claim **60**, (Currently Amended) **King et al.** teach a data entry system of a device, comprising:

a screen (*Col. **20**, Ln. **1-4**, FIG. **6**, i.e. **53***); and

a processor (*Col. **6**, Ln. **46-52**, FIG. **2**, i.e. **100***) adapted to display on the screen characters entered through the keys (*Col. **6**, Ln. **46-52**, FIG. **2***),

wherein the plurality of keys (*Col. **6**, Ln. **28-33**, FIG. **1B**, i.e. **56***) associated with all the letters of an alphabet of a language (*Col. **6**, Ln. **28-33**, FIG. **1B**, i.e. **A-Z***).

However, **King et al.** do not teach that the keys are arranged in two groups each on an opposite end of the device, the groups being separated at least partially by a section not containing keys, wherein each group is configured for use by a finger of a different hand of a user.

In the same field of endeavor, **Goren** teaches that the keys are arranged in two groups (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***) each on an opposite end of the device (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **Left** and **Right***), the groups being separated at least partially by a section (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **508***) not containing keys, wherein each group is configured for use by a finger of a different hand of a user (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **Left** and **Right***),

wherein the plurality of keys associated with all the letters of the alphabet are arranged (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** or **506***) such that a user can touch all the keys concurrently with two fingers (*Col. **5**, Ln. **24-54**, e.g. thumb*), in a manner which allows selectively actuating each of the keys by one of the two fingers (*Col. **5**, Ln. **24-54***).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **King et al.** teaching of a data entry system

comprising plurality of input buttons having word prediction capability with **Goren** teaching of arrangement of input buttons in left and right columns *to provide faster and easier data input*.

Regarding Claim **36**, (Previously Presented) the system of claim 35, wherein **King et al.** further teach comprising:

an output unit (*Col. **20**, Ln. **1-4**, FIG. **6**, i.e. **53***) for displaying the selected word (*Col. **20**, Ln. **12-1**, FIG. **6**, e.g. **done***) to a user; and

a second input unit (*Col. **6**, Ln. **34-35**; Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **56's Left Column***) adapted to receive second input signals corresponding to the letters of the alphabet (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **S, U, I, M, G, N, B, Z...***),

wherein the word predictive system is adapted to select a word for a sequence of first input signals using received second input signals received after displaying a selected word for the sequence of first input signals (*Col. **20**, Ln. **12-1**, FIG. **6**, e.g. **done***).

Regarding Claim **37**, (Previously presented) the system of claim 36, wherein the second input unit is adapted to receive speech signals corresponding to the letters of the alphabet which is well-known in the art as "Speech Recognition".

Regarding Claim **38**, (Previously presented) the system of claim 37, comprising a recognition system which uses the speech signals corresponding to the letters of the alphabet in selecting for first input signals a single letter from the group of symbols associated with the first signal which is well-known in the art of "Speech Recognition".

Regarding Claim **39**, (Previously presented) the system of claim 35, wherein the input unit comprises a single pressure sensitive pad for receiving the first input signals, corresponding with the letters of the alphabet which is well-known in the art as "Hand-writing Recognition".

Regarding Claim **40**, (Previously presented) **King et al.** and **Goren** teach the system of claim 35.

Although **King et al.** and **Goren** do not explicitly teach that the input device comprises four keys, each key being used to generate one of the first input signals, the four keys together associated with all the letters of the alphabet of the language.

However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to recognize that the total number of keys associated with all the letters of the alphabet would have been an obvious Choice of Design (as shown in **Goren's** *FIGs.* ***1B*** *or* ***9***).

Regarding Claim **41**, (Previously presented) the system of claim 40, wherein **King et al.** teach each of the first input signals is inputted by a single pressing on a respective one of the four keys (*Col.* ***6***, *Ln.* ***33-45***).

Regarding Claim **44**, (Previously presented) the system of claim 42, wherein **Goren** teaches the columns are distanced from each other by a distance substantially greater than the widths of the keys (*Col.* ***21***, *Ln.* ***19-33***, *FIG.* ***24B***, *i.e.* ***504*** *&* ***506***).

Regarding Claim **45**, (Previously presented) the system of claim 42, wherein **Goren** teaches the columns are located on opposite sides of a screen of the system (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***).

Regarding Claims **46** and **69**, (Previously presented) the system of claims 40 and 60 respectively, wherein **Goren** teaches the keys comprise physical keys (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***).

Regarding Claims **47** and **70**, (Previously presented) the system of claim 40 and 60 respectively, wherein **Goren** teaches the keys comprise virtual keys (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***).

Regarding Claim **48**, (Previously presented) the system of claim 40, wherein **King et al.** teach different interactions with the keys correspond to different signals (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **1, 4,** and **7...***).

Regarding Claim **49**, (Previously presented) the system of claim 48, wherein **King et al.** teach the keys respond to two different types of interactions, a first type of interaction corresponds to respective ones of the first signals and a second type of interaction corresponds to symbols other than those represented by the first signals (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **1, C, Y,** or **K...***).

Regarding Claim **50**, (Previously presented) the system of claim 49, wherein **King et al.** teach the keys are associated with respective ones of the first signals when pressed slightly and with other symbols when pressed heavily (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **1, C, Y,** or **K...***).

Regarding Claim **51**, (Previously presented) the system of claim 35, wherein **King et al.** teach each of the four input signals corresponds to at least six letters (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **4, O, L, X, &, $,** and **%***).

Regarding Claim **52**, (Previously presented) the system of claim 51, wherein **King et al.** teach two of the input signals correspond to six letters (*Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **C, Y, K, O, L,** and **X***).

Regarding Claim **54**, (Currently Amended) the system of claim 35, wherein the finger of each hand comprises thumb which is obviously, anatomically, and physiologically true for operators of homo sapiens species.

Regarding Claim **61,** (Previously presented) the system of claim 60, wherein **Goren** teaches the plurality of keys are arranged in two groups each on an opposite end of the screen (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **Left** and **Right***).

Regarding Claim **62**, (Previously presented) the system of claim 60, wherein **Goren** teaches the plurality of keys are organized in two columns, one on one end of the device and a second one on an opposite end of the device (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **Left** and **Right***).

Regarding Claim **63**, (Previously presented) the system of claim 60, **Goren** teaches further comprising a pointing device on a side of the device opposite the screen (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **510***).

Regarding Claim **64**, (Previously presented) the system of claim 60, wherein **Goren** teaches at least two of the no more than six keys are located on a right

side of the screen and at least two of the no more than six keys are on a left side of the screen (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***).

Regarding Claim **65**, (Previously presented) the system of claim 64, wherein **King et al.** teach the screen has a larger horizontal axis than vertical axis in its letter display orientation (*FIG. **6***).

Regarding Claim **66**, (Previously presented) the system of claim 60, wherein **Goren** teaches the plurality of keys comprise four keys associated with all the letters of the alphabet (Col. **22**, Ln**. 17-20**, *FIGs. **1B** or **9***).

Regarding Claim **68**, (Previously presented) the system of claim 60, wherein **Goren** teaches the plurality of keys are arranged in two groups of equal numbers of keys (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***).

Regarding Claim **71**, (Previously presented) the system of claim 60, wherein **King et al.** teach each group includes at least one additional key not associated with letters (*FIG. **1B***).

Regarding Claim **72**, (Previously presented) the system of claim 60, wherein **King et al.** teach each group includes exactly four keys on its end of the device (*FIG. **1B**; i.e. including **SHIFT***).

Regarding Claim **73**, (Previously presented) the system of claim 60, wherein each group includes exactly three keys on its end of the device (*Col. **6**, Ln. **34-35**; Col. **6**, Ln. **28-33**, FIG. **1B**, e.g. **56's Left** and **Right Columns***).

Regarding Claim **74**, (Previously presented)) the system of claim 36, wherein **King et al.** teach the word predictive system is adapted to provide a first word

for a sequence of first input signals and to provide a second word different from the first word, for the same sequence of first input signals, responsive to receiving a second input signal (*FIG.* ***6***).

Regarding Claim **75**, (Previously presented) the system of claim 36, wherein **King et al.** teach the second signals which the second input unit is adapted to receive are not affected by the specific first input signals received (*FIG.* ***6***).

Regarding Claim **76**, (Currently Amended) the system of claim 36, wherein **King et al.** teach the word predictive system is adapted to select a word for a sequence of first input signals using second input signals received after a cursor is moved from a place it was located at immediately after a corresponding first signal was entered (*Col.* ***20****, Ln.* ***12-1****, FIG.* ***6****, e.g.* ***done***).

Regarding Claim **77**, (Previously presented) the system of claim 35, wherein **Goren** teaches the plurality of different first input signals comprise four first input signals associated with all the letters of the alphabet (Col. **22**, Ln. **17-20**, *FIGs.* ***1B*** *or* ***9***).

Regarding Claim **78**, (Previously presented) the system of claim 35, wherein **Goren** teaches both groups include the same number of keys (*Col.* ***21****, Ln.* ***19-33****, FIG.* ***24B****, i.e.* ***504*** *&* ***506***).

Regarding Claim **79**, (Previously presented) the system of claim 35, wherein **Goren** teaches the groups are located on opposite ends of the device (*Col.* ***21****, Ln.* ***19-33****, FIG.* ***24B****, i.e.* ***504*** *&* ***506***).

Regarding Claim **80**, (Previously presented) the system of claim 35, wherein **Goren** teaches the input signals together associated with all the letters of the alphabet are generated by interactions of the fingers with up to six of the keys (Col. **22**, Ln. **17-20**, *FIGs. **1B** or **9***).

Response to Arguments/Amendments/Remarks

2. Applicant's arguments, see P. 9-10, filed 09/28/2010, with respect to 35 USC § 112 1st and 2nd ¶s have been fully considered and are persuasive. The Rejections under 35 USC § 112 1st and 2nd ¶s have been withdrawn.

Aaa. Applicant's arguments filed 09/28/2010 have been fully considered but they are not persuasive.

First of all concerning Claim 35, applicant argues that the references do not teach "...a plurality of keys arranged in two groups, ... such that a user can touch all the keys of each group concurrently with a single finger, in a manner which allows selectively actuating each of the keys by the finger...". However, the Examiner respectfully disagrees because **Goren** teaches that

the keys are arranged in two groups (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** & **506***) each on an opposite end of the device (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **Left** and **Right***), the groups being separated at least partially by a section (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **508***) not containing keys, wherein each group is configured for use by a finger of a different hand of a user (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **Left** and **Right***),

wherein the plurality of keys associated with all the letters of the alphabet are arranged (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** or **506***) such that a user can touch all the keys concurrently with two fingers (*Col. **5**, Ln. **24-54**, e.g. thumb*), in a manner which allows selectively actuating each of the keys by one of the two fingers (*Col. **5**, Ln. **24-54***).

Secondly applicant's arguments with respect to claim 53 have been considered but are moot since it is cancelled.

Thirdly concerning Claim 60, applicant argues that the references do not teach "...wherein the plurality of keys associated with all the letters of the alphabet are arranged such that a user can touch all the keys concurrently with two fingers, in a manner which allows selectively actuating each of the keys by one of the two fingers...". However, the Examiner respectfully disagrees because **Goren** teaches that

the plurality of keys associated with all the letters of the alphabet are arranged (*Col. **21**, Ln. **19-33**, FIG. **24B**, i.e. **504** or **506***) such that a user can touch all the keys concurrently with two fingers (*Col. **5**, Ln. **24-54**, e.g. thumb*), in a manner which allows selectively actuating each of the keys by one of the two fingers (*Col. **5**, Ln. **24-54***).

Finally independent claims are properly rejected as shown above.

3. Claims **1-34**, **42-43**, **53**, **55-59**, and **67** are canceled.

Conclusion

The prior art(s) made of record and not relied upon (is)/are considered pertinent to applicant's disclosure: Vale; Peter O. (US Patent/PGPub. No. 6359572).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH T. LAM whose telephone number is (571)270-3704. The examiner can normally be reached on M-F (7:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Lam/
Examiner, Art Unit 2629

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629